

CLAIMS:

1. Optical writing system (102; 202) for an optical disc writing apparatus (101; 201), comprising:

- an encoder device (10; 210) having an input (11) for receiving a data signal (S_D) and an output (12; 212) for providing a single encoded signal ($S_{EFMdata}$; S_{MUX}) which contains data information and clock information;

- a laser driver circuit (120; 220) having a signal input (22; 222) for receiving an encoded signal ($S_{EFMdata}$; S_{MUX}) from the encoder device (10; 210) and comprising a flipflop device (25) with a data input (D) for receiving a digital data signal ($S_{EFMdata}$), and a clock input (CLK) for receiving a digital clock signal (S_{CLK}),

10 wherein the laser driver circuit (120; 220) further comprises signal generator means (130; 230) having a signal input (131; 231) coupled to the signal input (22; 222) of the driver circuit (20; 220), a data output (132; 232) coupled to the data input (D) of the flipflop (25), and a clock output (133; 233) coupled to the clock input (CLK) of the flipflop (25);

15 the signal generator means (130; 230) being designed to generate at its data and clock outputs a digital data signal and a digital clock signal, respectively, from an encoded signal received at its signal input.

2. Optical writing system (102) according to claim 1, wherein the encoder device (10) is designed to generate at its output (12) a digital data signal ($S_{EFMdata}$), and wherein the 20 signal generator means (130) comprises clock signal regenerator means (130) designed for deriving a digital clock signal (S_{CLK}) from a digital data signal ($S_{EFMdata}$).

3. Optical writing system (102) according to claim 2, wherein the flipflop (25) and the regenerator means (130) are integrated into one unit.

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4. Optical writing system (202) according to claim 1, wherein the encoder device (210) is designed to generate at its output (212) a combined signal (S_{MUX}) which is based on a combination of a digital data signal ($S_{EFMdata}$) and a digital clock signal (S_{CLK}), and

wherein the signal generator means (230) comprises demultiplexing means (230) designed to regenerate a data signal ($S_{EFMdata}$) and a clock signal (S_{CLK}) from a combined signal (S_{MUX}) as coded by the encoder (210).

5 5. Optical writing system (202) according to claim 4, wherein the flipflop (25) and the demultiplexing means (230) are integrated into one unit.

6. Optical writing system according to claim 1, wherein the signal generator means (130; 230) is arranged immediately before the flipflop device (25).

10 7. Optical recording apparatus (101; 201) for writing information to an optical storage medium, comprising an optical writing system according to any of the claims 1-6.

15 8. Method for applying a digital data signal ($S_{EFMdata}$) and a digital clock signal (S_{CLK}) to a flipflop device (25) of a laser driver circuit (120; 220), the method comprising the steps of:

- providing a single encoded signal ($S_{EFMdata}$; S_{MUX}) which contains data information and clock information;

- transferring said single encoded signal ($S_{EFMdata}$; S_{MUX}) to the laser driver circuit (120; 220);

- deriving a digital data signal ($S_{EFMdata}$) and a digital clock signal (S_{CLK}) from said single encoded signal ($S_{EFMdata}$; S_{MUX});

- applying the derived digital data signal ($S_{EFMdata}$) and the derived digital clock signal (S_{CLK}) to said flipflop device (25).

25 9. Method according to claim 8, wherein said single encoded signal ($S_{EFMdata}$; S_{MUX}) is the digital data signal ($S_{EFMdata}$).

10, 10. Method according to claim 8, the method comprising the steps of:

30 - generating a digital data signal ($S_{EFMdata}$) and a digital clock signal (S_{CLK});

- multiplexing these two signals into one single encoded signal (S_{MUX});

- transferring said single encoded signal (S_{MUX}) to the laser driver circuit (120;

220);

- demultiplexing said single encoded signal (S_{MUX}) to regenerate a digital data signal ($S_{EFMdata}$) and a digital clock signal (S_{CLK});
- applying the regenerated digital data signal ($S_{EFMdata}$) and the regenerated digital clock signal (S_{CLK}) to said flipflop device (25).

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